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COMPARISON OF DESOXIMETASONE AND HYDROCORTISONE BUTYRATE IN PSORIASIS

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Abstract. Thirty psoriatics were treated for 2 weeks on a double-blind controlled basis with desoximetasone (0.25%) and with hydrocortisone butyrate (0.1%). It was a randomised left–right comparative trial. Thirteen out of 27 patients preferred desoximetasone, 3 patients preferred hydrocortisone butyrate. There was also a significantly better effect of desoximetasone as judged by the observer after the second week of treatment.

Key words: Psoriasis; Comparative study; Desoximetasone; Hydrocortisone butyrate

Topical steroids are still the most widely used drugs for the treatment of psoriasis and numerous preparations are available. Whereas until recently great efforts were made to find ever more potent steroids, it is now realized that topically administered steroids are just as liable to cause unwanted side effects as are those that are systemically administered (3, 7). Many endeavours have been made to produce drugs which are as effective as the fluorinated steroids, yet have fewer side effects (1, 9). Nevertheless, it remains an open question whether these drugs are sufficiently potent for the treatment of psoriasis. In the present study one of these drugs, hydrocortisone butyrate cream, was compared with a new synthetic steroid, desoximetasone.

METHODS AND MATERIAL

Desoximetasone (9α-fluoro-11β-21-dihydroxy-16α-methylpregna-1.4-diene-3.20-dion trial designation A 41304; Ibaril®x; Hoechst AG, Frankfurt a. M., West-Germany) was used in a concentration of 0.25% in a water/oil emulsion without additives. Commercial hydrocortisone butyrate was chosen for comparison. Both steroids were packed in identical tubes which were coded randomly.

Thirty psoriatics were treated on a double-blind controlled basis using identical bilateral lesions. The applications were made twice daily without occlusion. Patients already on topical steroids were given one week's pretreatment with cold cream prior to the trial. Erythema, induration, scaling, pruritus and pustulation were judged prior to treatment and following one and 2 weeks' treatment and were graded using a one to four scale. The patients' preference was noted after 2 weeks' treatment. Statistical examination was carried out by χ^2-test.

RESULTS

Twenty-eight patients were evaluated after one week and 27 patients completed the study. The

Table I. *Gradings in 27 patients who completed treatment with desoximetasone*

Symptoms	Prior to treatment	After one week	After two weeks
Erythema	2.96±0.18	2.15±0.35	1.87±0.32
Scaling	2.93±0.37	2.02±0.38	1.56±0.39
Induration	2.27±0.50	1.85±0.51	1.50±0.40
Pruritus	1.78±0.54	1.15±0.20	1.15±0.20
Pustulation	1.00±0	1.00±0	1.00±0

Table II. *Gradings in 27 patients who completed treatment with hydrocortisone butyrate*

Symptoms	Prior to treatment	After one week	After two weeks
Erythema	2.96±0.26	2.26±0.42	2.07±0.32
Scaling	2.59±0.39	2.26±0.42	1.89±0.39
Induration	2.30±0.44	2.00±0.54	1.77±0.41
Pruritus	1.81±0.80	1.22±0.32	1.19±0.30
Pustulation	1.00±0	1.00±0	1.00±0

Table III. *Comparison of treatments after one week with desoximetasone (D) or hydrocortisone butyrate (HB)*

Symptoms	Cases where D was better *n*	Cases where HB was better *n*	Cases showing no difference *n*
Erythema	6	3	19
Scaling	10	5	13
Induration	4	1	23

Table IV. *Comparison of treatments after two weeks with desoximetasone (D) or hydrocortisone butyrate (HB)*

Symptoms	Cases where D was better *n*	Cases where HB was better *n*	No difference *n*
Erythema	8	2	17
Scaling	11	3	13
Induration	10	2	15
Patients' preference	13	3	11

efficacy of the two treatments is summarized in Tables I–IV.

Thirteen out of 27 patients preferred desoximetasone, 3 patients preferred hydrocortisone butyrate. The difference in preference is statistically significant ($p<0.05$). The overall preference of the physician concerning the efficacy of the treatment on erythema, scaling, and induration can be seen in Tables III and IV. For each of the parameters, scaling and induration, desoximetasone proved better than hydrocortisone butyrate. The difference was statistically significant after the second week of treatment ($p<0.05$). The patients tolerated both compounds well. No side effects were seen.

DISCUSSION

The new steroid proved itself highly efficacious, and had a rapid onset of action. The data presented here are in agreement with other clinical trials against other steroid compounds (2, 4, 5). Hydrocortisone butyrate too seemed to have some effect on psoriasis. Both drugs have a penetration through skin (6, 8) that should allow them to influence psoriasis. Hydrocortisone butyrate has previously been shown to be as effective as 0.1% triamcinolone acetonide cream (6), though in that trial it was studied under occlusive plastic dressing. In the present study, where no occlusion was used, desoximetasone was demonstrably more effective than hydrocortisone butyrate. The short observation period does not allow of any comparison of adverse steroid effects. None were observed during treatment.

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